

RECENT PLANT COLLECTIONS FROM DOMINICA

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Recent collections from the Commonwealth of Dominica, Lesser Antilles, are reviewed, and attention is drawn to first records of 40 phanerogams and six ferns. Second collections are also listed where they are considered noteworthy.

Dominica is a volcanic island about 28 miles long and 15 miles wide. It is the third largest of the Lesser Antilles and has the highest rainfall. Its mountainous terrain has so far protected its magnificent forests from the intensive agricultural development that has cleared the other, less-rugged islands of the group. An account of the ecology and botanical exploration of the island can be found in Hodge (1954).

Between 1888 and 1889 Ramage collected plants in Dominica, and the British Museum (Natural History) has 485 of his excellent specimens. The Museum's Dominican holdings were later increased by duplicates from Hodge, collected between 1937 and 1940, and from Howard, collected in 1950. Other botanists, notably the Bredin-Archbold-Smithsonian collectors of the 1960's and 1970's, have subsequently visited the island, but few of their duplicates have reached the British Museum. Since Ramage and Hodge made their collections, there have been major changes in Dominica. The hurricanes of 1979 and 1980 devastated both the natural vegetation and the agricultural industry, and much of the resulting financial aid went toward building roads, making more of the island accessible for farming and logging. Large areas of rainforest known to Ramage are now under cultivation, and the pressure to plant more and more bananas is ever increasing.

I have visited Dominica on four occasions: 28 August–19 October 1983 (collection numbers 3400–4126), 17 September–7 November 1984 (4130–4706), 11 January–16 February 1986 (5130–5528), and 18 March–12 April 1987 (5550–5859). About 1600 numbers were collected, the first set being deposited at the British Museum (Natural History) (BM), with incomplete sets at the Roseau Botanic Garden, the Smithsonian Institution (US), the Arnold Arboretum (A), and the Missouri Botanical Garden (MO). The following notes draw attention to those collections that are first records for the island, or are otherwise of interest. The families are listed systematically in the BM and Kew herbarium order, which is modified from Bentham & Hooker (1862–1883).

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SPERMATOPHYTA

NYMPHAEACEAE

***Nymphaea rubra* Roxb.** (First record; cultivated)

5509, growing in the pool at Canefield, where it had presumably been planted for ornament. Since there is a photograph of this striking plant on the tourist brochure, it is strange that it has not been previously recorded.

MELIACEAE

***Trichilia septentrionalis* C. DC.** (Second record)

4329, growing in forest at the edge of the ravine at Syndicate; sterile. Fruiting material (5351) was later collected from the same tree. It was first collected by Ramage at Laudat in 1888. This species occurs in mainland Central America from Costa Rica to Panama, and in northern South America.

OLACACEAE

***Schoepfia schreberi* Gmelin** (Second record)

5207, with very young fruit, growing in dry scrub vegetation near Dublanc, and 5252, in similar scrub on the Cabrits. The previous record of this plant was based on an Imray specimen collected sometime between 1832 and 1875. Widespread in the West Indies, it occurs in both Guadeloupe and Martinique (Fournet, 1978).

CELASTRACEAE

***Celastrus racemosus* (Reisseck) Loes.** (First record)

3869, in fruit, growing in montane thicket at Freshwater Lake. It is distributed throughout Central America. *Celastrus grenadensis* Urban, from Grenada, is considered a synonym.

RHAMNACEAE

***Gouania lupuloides* (L.) Urban** (Second record)

4666, scrambling over thickets at Petite Coulibrie. Fruiting material (5202) was later collected near Dublanc. Although common in the West Indies, this plant had not been recorded from Dominica since Imray's collection (Nicolson, unpubl. ms.), sometime after 1837.

SAPINDACEAE

***Allophylus racemosus* Sw.** (First record)

4440, growing in dry woodland between Fond Hunte and Fondchère. It occurs generally in Central America and the West Indies but apparently has not been collected in Dominica before.

LEGUMINOSAE

Acacia tortuosa (L.) Willd. (First record)

5686, in fruit, growing beside the road near St. Joseph. It occurs in Florida, the West Indies, and South America.

Anadenanthera peregrina (L.) Speg. var. **peregrina**
(First record; cultivated or naturalized)

5833, in full flower, and 5834, with older flowers and a few pods. Both were growing near the bottom of the road to Springfield Estate. Native to northern Brazil, Guyana, Colombia, and Venezuela and probably naturalized in some of the West Indies, it is often planted for ornament.

Calopogonium mucunoides Desv. (Second record; naturalized)

5399, trailing among grasses beside the road near La Plaine. It was collected in Dominica once before, by Fairchild in 1932. It is native to South America and has become naturalized in the West Indies.

Cassia javanica L. (First record; cultivated)

5856, growing in Roseau Botanic Garden; sterile. It is native to Indonesia but is cultivated in the West Indies for its large, attractive, pink and white flowers.

Indigofera hartwegii Rydb. (First record)

5550, growing beside the path to Scotts Head. It is a Mexican species and new to the West Indies.

Inga vera Willd. subsp. **vera** (First record)

5634, bearing very young pods, growing at the edge of a banana field near Syndicate. Although it is native from Mexico to northern South America and the Greater Antilles, it is new to the Lesser Antilles.

Mimosa arenosa (Willd.) Poiret var. **arenosa** (First record; naturalized)

5360, in flower, growing beside the road near Coulibistri. A specimen bearing pods (5822) was later collected from the waste ground below the road near Mahaut. Native to Venezuela and naturalized in Mexico, it has been collected recently in Martinique and Puerto Rico (Nicolson, pers. comm.).

Mucuna pruriens (L.) DC. f. **cochinchinensis** (Lour.) Backer (Second record)

5562, growing in dry roadside scrub near Dublanc. Stehlé collected it on Guadeloupe and reported it as introduced from Dominica (Nicolson, unpubl. ms.), but this may be the first collection from this island.

Piscidia carthagenensis Jacq. (First record)

5710, in flower, growing high up on a cliff near Coulibistri. Fournet (1978) described it as endemic to Guadeloupe.

Rhynchosia phaseoloides (Sw.) DC. (Second record)

5704, growing at Milton. Widely distributed throughout the Caribbean and South America, it was first collected in Dominica by Imray.

HALORAGACEAE

Myriophyllum aquaticum (Vell.) Verdc. (First record)

3745, a pondweed from Canefield (sterile), and 5512 (fertile). This is a South American species naturalized in North America, Southeast Asia, and Australia. It is the first record of the family for the Lesser Antilles.

LYTHRACEAE

Cuphea hyssopifolia Kunth (Second record; cultivated)

5457, growing at Baiac. It is native to Central America. This plant was attributed to Dominica by Grisebach (1860), based on an Imray specimen that may have been misidentified (Nicolson, unpubl. ms.).

Lagerstroemia speciosa (L.) Pers. (First record; cultivated?)

5828, in fruit, growing beside the road near Hillcrest Estate, east of Portsmouth. Occurring from India to south China and from Indonesia to northern Australia, it is often planted for ornament in the tropics.

BEGONIACEAE

Begonia heracleifolia Schldl. & Cham. (First record; cultivated)

5459, growing at Baiac. It is native to southern Mexico, Guatemala, and Belize.

RUBIACEAE

Hedyotis callitrichoides (Griseb.) W. Lewis (Second record)

5374, growing out of concrete steps, at La Plaine. This is a West Indian species and occurs on Guadeloupe, but it has not yet been recorded from Martinique. Ernst made the first collection in Dominica, about 1964.

Hedyotis commutata Schultes (First record)

4589, growing at the edge of a cultivated field beside the road between Trafalgar and Trafalgar Falls. Originally from tropical Africa and Madagascar, it has become naturalized in the West Indies.

Vangueria madagascariensis Gmelin (Second record; cultivated)

3747, bearing a few flowers and young fruits, growing beside the road above Canefield. It is also cultivated at Baiac. The previous record was based on a tentatively identified specimen collected by Ernst (Nicolson, unpubl. ms.). This plant is grown for its fruits, which are sold in the market and are known locally as "tamarins des Indes."

COMPOSITAE

Chromolaena integrifolia (Bertero ex Sprengel) King & Robinson
(First record)

5816, growing on rough ground below the path east of Capucin. It is known from Guadeloupe and Montserrat but not from Martinique.

Pectis elongata Kunth var. **floribunda** Kiel (First record)

4039, growing thickly in a large patch beside the path between the swamp and the sea, East Cabrit. It is no longer to be found there because of the new road to Fort Shirley, but a few more plants were seen on the roadside between Petite Baie and the Picard Estate. It is native to Central America and the West Indies. In Jamaica the popular name for this plant is "verbena grass" (Adams, 1972).

ERICACEAE

Gaultheria domingensis Urban (First record)

4212, with flowers and fruits, growing in boggy soil in the Valley of Desolation, and 5482, from the same locality. First described from Hispaniola, it has also been recorded from Guadeloupe and Martinique (Fournet, 1978).

MYRSINACEAE

Ardisia crenata Sims (First record; cultivated)

5464, planted at Baiac. It is native to Japan and northern India.

ASCLEPIADACEAE

Cynanchum parviflorum Sw. (Second record)

5298, hanging from a roadside thicket near Portsmouth. This specimen has exceptionally large, pale yellow flowers. It is the first collection from Dominica since Imray's (Nicolson, unpubl. ms.), although the species is generally common in the West Indies.

CONVOLVULACEAE

Ipomoea obscura (L.) Ker Gawler (First record)

5505, twining among roadside vegetation near Massacre. It is an Asiatic species but has been recorded from Marie Galante and Guadeloupe (Fournet, 1978).

SOLANACEAE

Solanum triste Jacq. (First record)

3769, growing near the Belvédère Estate, Délices. Native to coastal Venezuela and Trinidad, it is fairly common on Martinique but is not yet recorded from Guadeloupe.

SCROPHULARIACEAE

Stemodia verticillata (Miller) Hassler (Second record)

5573, growing on a path at Syndicate. It was previously collected by Hodge in 1938 (Nicolson, unpubl. ms.). Widespread in the Neotropics, it is often found as a weed of cultivation.

GESNERIACEAE

Chrysothemis pulchella (Don ex Sims) Decne. (First record; cultivated?)

3638, growing at the edge of a banana field at Syndicate, but perhaps planted for ornament. Native to Panama and Trinidad, it is sometimes cultivated.

Gloxinia perennis (L.) Druce (First record; cultivated)

5458, growing at Baiac. It occurs naturally from Colombia to Peru and is well known in cultivation.

ACANTHACEAE

Asystasia gangetica (L.) T. Anderson (First record; cultivated)

4218, with mauve flowers, and 4219, with greenish yellow ones, both growing near the house at Baiac. This is an Indian plant, sometimes cultivated, and is naturalized on the Malay Peninsula and in tropical Africa.

Justicia betonica L. (First record; cultivated)

4225, growing at Baiac. It is native to India.

LABIATAE

Plectranthus verticillatus (L. f.) Druce (First record; cultivated)

4222, flowering, trailing over a tree stump at Baiac. It is South African in origin.

AMARANTHACEAE

Celosia argentea L. (First record)

4080, growing in swampy ground near the sea, East Cabrit. This is a common tropical plant and has been collected in both Guadeloupe and Martinique.

EUPHORBIACEAE

Breynia disticha J. R. & G. Forster (First record; naturalized)

5192, growing at the edge of scrub woodland near the beach at Douglas Bay. Originally from the Pacific islands, it is often found naturalized in the tropics and is commonly known as "snow-bush."

Sebastiania hexaptera Urban (First record)

3649, growing in hurricane-damaged forest beside the Picard gorge, Morne Diablotin. Fruiting specimens, 4333 and 5356, were later collected at the same locality. It is reported as rare on Guadeloupe and Martinique (Howard, 1974).

ORCHIDACEAE

Elleanthus dussii Cogn. (First record)

3862, in fruit, growing beside the road from Laudat to Freshwater Lake. It is endemic to the Lesser Antilles and has been recorded from Guadeloupe and Martinique (Howard, 1974).

Pleurothallis wilsonii Lindley (First record)

5676, in fruit, growing in Milton on the trunk of *Syzygium jambos* (L.) Alston. It is distributed throughout the Greater Antilles and has been recorded from Guadeloupe.

Spiranthes adnata (Sw.) Bentham (First record)

5638, growing at the edge of the Picard gorge. It is widely distributed in Central America and the West Indies and has been collected in several of the Lesser Antilles.

HELICONIACEAE

Heliconia psittacorum L. f. (First record; naturalized)

3762, growing in Délices on a slope below a path. It is native to Central and South America, commonly cultivated in the West Indies, and often found as an escape.

DIOSCOREACEAE

Dioscorea bulbifera L. (First record; naturalized)

3903, fruiting, found in the forest above Fond Pie, and 3941, a sterile specimen bearing aerial tubers. This is an Old World species, but it is widely cultivated as a food plant, often escaping and becoming naturalized.

AMARYLLIDACEAE

Zephyranthes rosea Lindley (First record; naturalized)

4670, growing in a deserted garden near Morne Rouge. It is Central American and occurs generally in the West Indies.

HYDROCHARITACEAE

Hydrilla verticillata (L. f.) Royle (First record)

5508, growing in the pool at Canefield. This plant is distributed throughout the warmer parts of the Old World and has now become a nuisance in Florida.

CYPERACEAE

Cyperus iria L. (First record)

3744, growing in waterlogged pasture at Canefield. It occurs in most tropical parts of the Old World, Australia, and North America. In the West Indies it has been recorded only from Cuba.

Eleocharis cellulosa Torrey (First record)

5283, growing in the Cabrit swamp. It is widespread in Central America but new to the Lesser Antilles.

Fimbristylis littoralis Gaudich. (First record)

4474, growing beside the track from Syndicate to Trou Cochon, and 5271, from the Cabrit swamp. This is an Old World sedge that has been recorded from St. Lucia and Grenada.

Kyllinga nemoralis (J. R. & G. Forster) Dandy ex Hutch. (First record)

3726, growing near the sea at Pointe Mulâtre. It was also found at Fort Shirley and on waste ground near the bridge at Goodwill. Originally from the Pacific islands, it has been recorded from Jamaica and Trinidad.

Scleria distans Poiret (First record)

4526, growing beside the road above Salisbury. It is known in Jamaica, Cuba, and the Dominican Republic but is new to the Lesser Antilles.

GRAMINEAE

Pennisetum purpureum Schum. (First record)

5365, growing on a bank at La Plaine. It is native to tropical Africa but has become naturalized in the West Indies and tropical America, where it has been introduced as a forage crop.

PTERIDOPHYTA

POLYPODIACEAE²

Acrostichum aureum L. (First record)

4054, growing in large clumps in the Cabrit swamp. It is found generally in the tropics, including the other Lesser Antillean islands.

Elaphoglossum smithii (Baker) Christ (First record)

4552 and 4554, epiphytic on buttresses on Morne Diablotin. This is endemic to the Lesser Antilles and has been recorded from St. Vincent and Grenada.

Polypodium aureum L. var. **areolatum** (Humb. & Bonpl. ex Willd.) Baker (First record)

3609, epiphytic on citrus, Syndicate. It occurs in the Greater Antilles, continental tropical America, the Galapagos Islands, and Guadeloupe.

Polypodium plumula Humb. & Bonpl. ex Willd. (First record)

3842, on a fallen slab of bark at Baiac. It is distributed in Florida, the Greater Antilles, continental tropical America, and the Lesser Antilles (Saba, Guadeloupe, and Martinique).

Pteris grandifolia L. (First record)

3937, on a buttress, in forest near Syndicate. It occurs in the Greater Antilles, the Lesser Antilles (Guadeloupe, Grenada), Trinidad, and continental tropical America from Mexico to Peru.

Thelypteris reptans (J. F. Gmelin) Morton var. **tenera** (Fée) Proctor (First record)

4073, growing on a wall, Fort Shirley. It may occur in Puerto Rico and has been recorded from St. Kitts, Nevis, and Guadeloupe in the Lesser Antilles.

²The following ferns were not recorded from Dominica in Howard's *Flora of the Lesser Antilles* (Vol. 2, 1977) and so are listed as first records.

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